

What is Claimed is:

1. A method of forming an activated lime for the removal of acid gases from a combustion gas stream comprising;

thermally decomposing calcium hydroxide to produce calcium oxide by contacting the calcium hydroxide with a gaseous stream having a temperature of between 750-950°F for a sufficient time to produce a calcium oxide having a specific surface area of between about 30-48 square meters per gram; and

collecting the calcium oxide so produced for use in contact with a combustion gas stream to remove acid gases therefrom.

2. The method of forming an activated lime for removal of acid gases from a combustion gas stream as defined in Claim 1 wherein said temperature is between about 750-850°F.

3. The method of forming an activated lime for removal of acid gases from a combustion gas stream as defined in Claim 1 wherein said gaseous stream is a combustion gas stream.

4. The method of forming an activated lime for removal of acid gases from a combustion gas stream as defined in Claim 1 wherein said gaseous stream is air.

5. The method of forming an activated lime for the removal of acid gases from a combustion gas stream as defined in claim 1 when the specific surface area is between 36-48 square meters per gram.

6. A method of forming an activated lime for the removal of acid gases from a combustion gas stream comprising;

thermally decomposing calcium hydroxide to produce calcium oxide by contacting the calcium hydroxide with hot air having a temperature of between 750-950°F for a sufficient time to produce a calcium oxide having a specific surface area of between about 30-48 square meters per gram; and

collecting the calcium oxide so produced for use in contact with a combustion gas stream to remove acid gases therefrom.

7. The method of forming an activated lime for removal of acid gases from a combustion gas stream as defined in Claim 6 wherein said temperature is between about 750-850°F.

8. The method of forming an activated lime for the removal of acid gases from a combustion gas stream as defined in claim 6 when the specific surface area is between 36-48 square meters per gram.